

REMARKS

In the Office Action, the Examiner rejected claims 1, 8, 15, and 21-24 under 35 U.S.C. 102(e) as being anticipated by Raleigh et al. (US Pat. No. 6,463,096 B1, "Raleigh"). The Examiner further rejected claims 6 and 13 under 35 U.S.C. 103(a) as being unpatentable over Raleigh in view of Love et al. (US Pat. No. 6,058,107, "Love"), and further in view of Christodoulides et al. (US Pat. No. 6,665,361 B1, "Christodoulides"). The Examiner further rejected claims 3-5, 10-12, and 17-20 under 35 U.S.C. 103(a) as being unpatentable over Raleigh in view of Rydbeck et al. (US Pat. No. 6,332,006 B1, "Rydbeck"). Applicants respectfully traverse each of these rejections.

Claim 1 is directed to a method for operating a base station to wirelessly transmit data communications to a plurality of user terminals on a single wireless carrier. Among other things, claim 1 requires that a base station transmits a superframe to a plurality of user terminals, the superframe including a plurality of high speed data frame. Among other limitations, claim 1 requires that the high speed data frame carries at least one data communication and includes: (1) a respective indication of at least one user terminal for which the at least one data communication is intended; and (2) a respective indication of at least one data rate of the high speed data frame.

The Examiner cites Raleigh as meeting all limitations of claim 1 under 35 U.S.C. 102(b). Raleigh discloses a TDMA/FDMA frame structure that allows a plurality of CPEs to share a spectrum. Referring to FIGs. 4A and 4B of Raleigh and related text, at any particular "frame time" one or more CPEs is allocated the "frequency spectrum". As the Examiner has noted, each CPE may be allocated between 2 MBPS and 30 MBPS of data rate (bandwidth) at any time. Thus, Raleigh discloses one technique for sharing spectrum over time using a combined TDMA/FDMA modulation scheme. In particular Raleigh addresses MAC layer issues when

using such a modulation scheme for both high data rate traffic and low data rate traffic.

Raleigh fails to disclose, suggest, or teach that the TDMA/FDMA frame structure includes: "a respective indication of at least one user terminal for which the at least one data communication is intended" or "a respective indication of at least one data rate of the high speed data frame" as required by claim 1. The Examiner seems to equate these limitations with the RA Frame of FIG. 4A and 4B of Raleigh. However, as is particularly pointed out at Col. 6, lines 44-46 of Raleigh, "[a] request access (RA) frame 402 is where individual CPEs may request access to the common transmission medium." Thus, the RA does not carry any indications of the frame (such as those of claim 1) but is merely a time period in which the CPEs may request access to the common transmission medium.

Raleigh does not address how notice is provided to the serviced CPEs that they are allocated time/frequency within the TDMA/FDMA frame structure. Further, Raleigh does not disclose in particular what is contained in the transmissions using the described TDMA/FDMA frame structure of FIGs. 4A and 4B. Raleigh fails to disclose, teach, or suggest all of the elements of claim 1. Thus, Raleigh fails to render claim 1 unpatentable under 35 U.S.C. 102(e). Independent claims 8, 15, and 21-24 include limitations similar to those of claim 1. For these same reasons, Raleigh does not render unpatentable independent claims 8, 15, and 21-24. All other claims depend from one of claims 1, 8, or 15 and are allowable for these same reasons.

The other cited references fail to meet the shortcomings of Raleigh. Christodoulides is cited for disclosing the user of pilot signals and fails to address the shortcomings cited above. Rydbeck is cited for disclosing short message services and fails to address the shortcomings cited above. Love is cited for discussing power control bits and fails to address the shortcomings cited above.

All claims are now allowable and a notice of allowance is courteously solicited. Please direct any questions or comments to the undersigned attorney.

Respectfully submitted,

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